



# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR2004/000251

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> <b>IPC7 A61K 35/78</b> According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) A61K 35/78, A23L 1/29 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched KOREAN PATENTS AND APPLICATIONS FOR INVENTIONS SINCE 1975 Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PubMed on-line		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2003-0180394 A1 (ERDELMEIER, C et al.), 25 September 2003 See entire document	1-6, 15
Y	KR 2002-0044745 A (KOREA INSTITUTE OF ORIENTAL MEDICINE), 19 June 2002 See entire document	1-6, 15
E, Y	KR 2004-0038481 A (REXGENE BIOTECH CO., LTD.), 08 May 2004 See entire document	1-6, 15
P, Y	KR 2003-0095669 A (REXGENE BIOTECH CO., LTD.), 24 December 2003 See abstract	1-6, 15
P, Y	JOO, SS et al. 'Isoflavones extracted from Sophorae fructus upregulate IGF-I and TGF-beta and inhibit osteoclastogenesis in rat bone marrow cells' In; Arch. Pharm. Res. January 2004; 27(1): 99-105	1-6, 15
P, Y	JOO, SS et al. 'Inhibition of IL-1 beta and IL-6 in osteoblast-like cell by isoflavones extracted from Sophorae fructus' In; Arch. Pharm. Res. December 2003; 26(12): 1029-35	1-6, 15
A	KR 2001-0081369 A (CHULLANAM-DO), 29 August 2001 See abstract and claims	1-6, 15
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search 16 JUNE 2004 (16.06.2004)		Date of mailing of the international search report 17 JUNE 2004 (17.06.2004)
Name and mailing address of the ISA/KR  Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140		Authorized officer YEO, Ho Sup Telephone No. 82-42-481-5627 

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KR 2002-0033452 A (CHULLANAM-DO), 06 May 2002 See abstract and claims	1-6, 15

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## Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item I.b of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of :

a. type of material

☒

a sequence listing

☐

table(s) related to the sequence listing

b. format of material

☒

in written format

☒

in computer readable form

c. time of filing/furnishing

☒

contained in the international application as filed

☒

filed together with the international application in computer readable form

☐

furnished subsequently to this Authority for the purposes of search

2. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

3. Additional comments:

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## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 7-14  
because they relate to subject matter not required to be searched by this Authority, namely:  
Claims 7-14 are directed to methods for treatment of the human or animal body by therapy, and thus relate to a subject matter which this International Searching Authority is not required to search under Article 17(2)(a)(i) and Rule 39.1(iv) PCT.
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Claims 1-4 and 15 are directed to a pharmaceutical composition, and claims 5 and 6 are directed to a food composition.

Although claims 1-6 and 15 are relevant to the composition comprising the same active ingredient, there is no technical relationship among a pharmaceutical composition and food composition.

Hence, the application contains the following separate groups of inventions not so linked as to form a single general inventive concept (PCT Rule 13.1):

- i) Claims 1-4 and 15
- ii) Claims 5 and 6

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any addition fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003-0180394 A1	25/09/2003	WO 02/00236 A1 JP 2004-501201 T2 EP 1294388 B1 DE 10031651 A1 AU 0175659 A5	03/01/2002 15/01/2004 07/01/2004 17/01/2002 08/01/2002
KR 2002-0044745 A	19/06/2002	NONE	
KR 2004-0038481 A	08/05/2004	NONE	
KR 2003-0095669 A	24/12/2003	NONE	
KR 2001-0081369 A	29/08/2001	NONE	
KR 2002-0033452 A	06/05/2002	NONE	